

## Versuch mit verschiedenen Kohlenhydraten:

The diagram illustrates the Fehling's test for starch. At the top, a long, continuous chain of green hexagons represents the starch polymer. A magnifying glass on the left shows a detailed view of this chain. Below, a test tube labeled 'Stärke-Lsg.' contains the starch solution. An arrow points to the right, labeled with the reagents: '+ CuSO<sub>4</sub>-Lsg.', 'FEHLINGSche Probe', and '+ Natriumkalium-tartrat.'. This leads to a second test tube being heated over a flame, indicated by the word 'erhitzen' in a red box. The final test tube on the right is labeled 'negativ' and contains a clear blue liquid, showing no color change.

Stärke-Lsg.

+ CuSO<sub>4</sub>-Lsg.  
FEHLINGSche Probe  
+ Natriumkalium-tartrat.

erhitzen

negativ

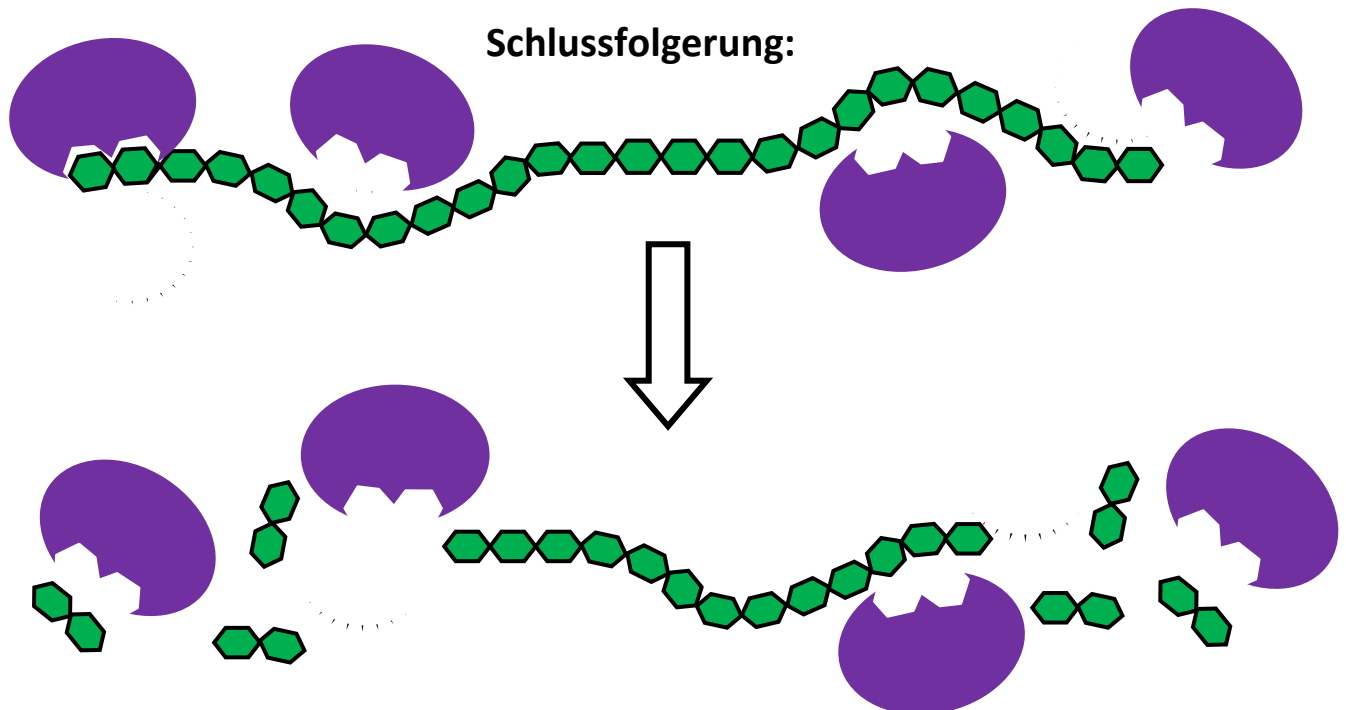
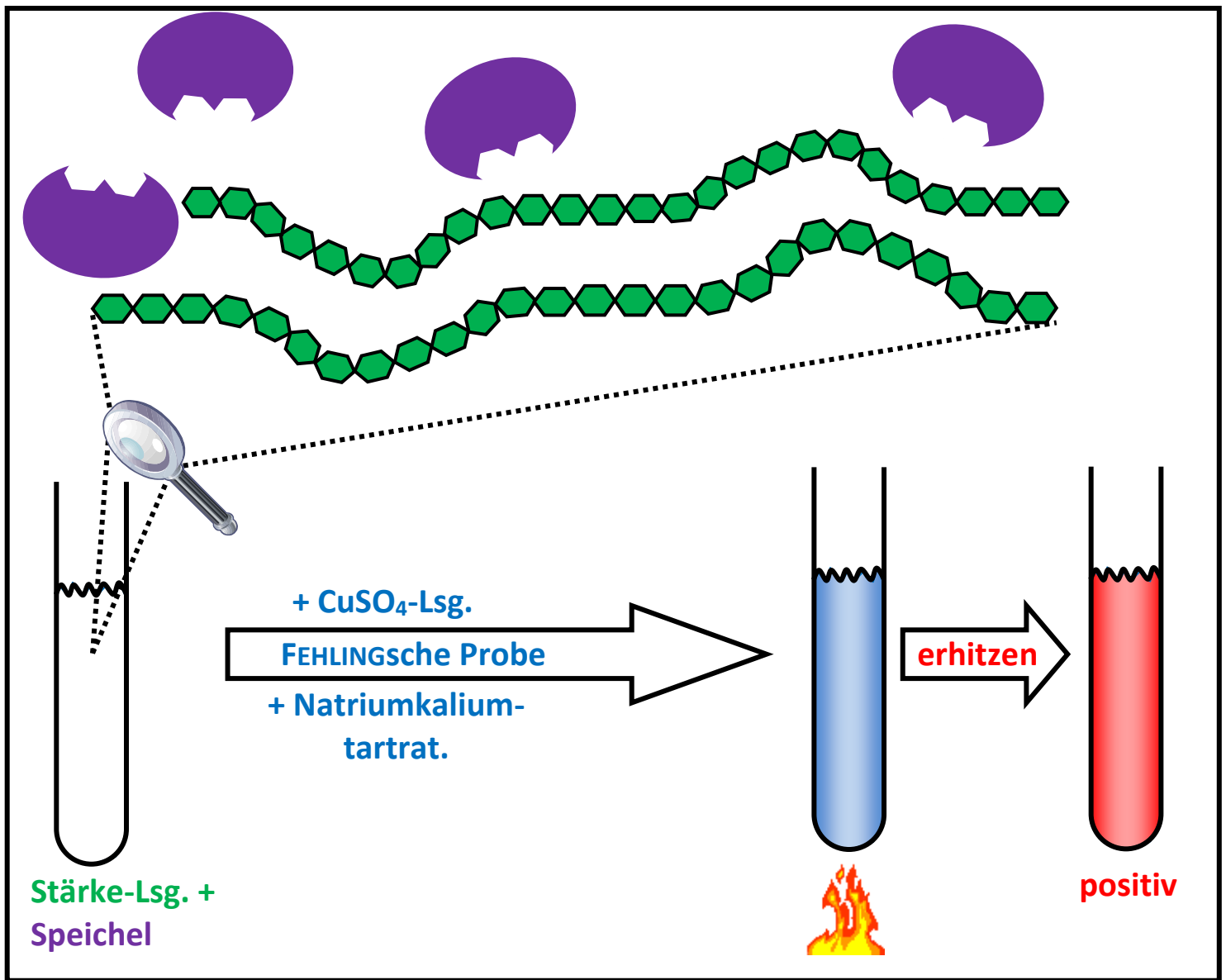
The diagram illustrates the Fehling's test for maltose. At the top, numerous small, branched chains of green hexagons represent the maltose disaccharides. A magnifying glass on the left shows a detailed view of these individual units. Below, a test tube labeled 'Maltose-Lsg.' contains the maltose solution. An arrow points to the right, labeled with the reagents: '+ CuSO<sub>4</sub>-Lsg.', 'FEHLINGSche Probe', and '+ Natriumkalium-tartrat.'. This leads to a second test tube being heated over a flame, indicated by the word 'erhitzen' in a red box. The final test tube on the right is labeled 'positiv' and contains a red liquid, indicating a positive result.

Maltose-Lsg.

+ CuSO<sub>4</sub>-Lsg.  
FEHLINGSche Probe  
+ Natriumkalium-tartrat.

erhitzen

positiv



Im Speichel muss sich ein Bestandteil befinden, der **Stärke** in kleinere Zuckereinheiten zerlegt. (In der Realität liegt das Enzym **Amylase** vor, welches Stärke in **Maltose-Einheiten** spaltet)